

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) ~~A short~~ An isolated anti-angiogenic peptide comprising the sequence ~~biologically equivalent to a sequence selected from the group consisting of SEQ ID NO: 1 and of SEQ ID NO:2.~~
2. (Original) The peptide of claim 1 wherein said peptide inhibits angiogenesis.
3. (Original) The peptide of claim 1 wherein said peptide inhibits metastasis.
4. (Previously amended) The peptide of claim 1 wherein said peptide inhibits an angiogenic disease.
5. (Original) The peptide of claim 4 wherein the disease is psoriasis, macular degeneration, a neurological disease, or restenosis in a tissue.
6. (Currently amended) A method of inhibiting angiogenesis in a tissue comprising administering the peptide of any of claims 1, 36, 37, 38, 40, 46 or 47 ~~claim 1.~~
7. (Original) The method of claim 6 wherein said peptide is administered intravenously, transdermally, intrasynovially, intramuscularly, intratumorally, intraocularly, intranasally, intrathecally, topically or orally.

8. (Original) The method of claim 6 wherein administering said peptide comprises: administration of a synthetic gene encoding said peptide, wherein the peptide is produced in vivo when the synthetic gene is expressed.

9. (Original) The method of claim 6 wherein said peptide is administered in conjunction with chemotherapy.

10. (Original) The method of claim 6 wherein said peptide is administered in conjunction with radiation.

11. (Original) The method of claim 6 wherein the tissue is inflamed and angiogenesis is occurring.

12. (Original) The method of claim 11 wherein the tissue is present in a mammal.

13. (Original) The method of claim 12 wherein the tissue is arthritic, ocular, retinal or a hemangioma.

14. (Currently amended) A method of inhibiting tumor growth or metastasis in a tissue comprising administering the peptide of any of claims 1, 36, 37, 38, 40, 46 or 47~~claim 1~~.

15. (Original) The method of claim 14 wherein said peptide is administered intravenously, transdermally, intrasynovially, intramuscularly, intratumorally, intraocularly, intranasally, topically or orally.

16. (Original) The method of claim 14 wherein administering said peptide comprises: administration of a synthetic gene encoding said peptide, wherein the peptide is produced in vivo when the synthetic gene is expressed.

17. (Original) The method of claim 14 wherein said peptide is administered in conjunction with chemotherapy.

18. (Original) The method of claim 14 wherein said peptide is administered in conjunction with radiation.

19. (Original) The method of claim 14 wherein the tumor or metastasis is a melanoma, carcinoma, sarcoma, fibrosarcoma, glioma or astrocytoma.

20. (Currently amended) A method of inhibiting psoriasis, macular degeneration, or restenosis in a tissue by administering the peptide of any of claims 1, 36, 37, 38, 40, 46 or 47~~claim 1~~.

21. (Original) The method of claim 20 wherein said peptide is administered intravenously, transdermally, intrasynovially, intramuscularly, intratumorally, intraocularly, intranasally, intrathecally, topically or orally.

22. (Original) The method of claim 20 wherein administering said peptide comprises: administration of a synthetic gene encoding said peptide, wherein the peptide is produced in vivo when the synthetic gene is expressed.

23. (Original) The method of claim 20 wherein administering the peptide is in conjunction with chemotherapy.

24. (Original) The method of claim 20 wherein administering the peptide is in conjunction with radiation.

25. (Currently amended) A method of detecting angiogenesis in a tissue by contacting the peptide of any of claims 1, 36, 37, 38, 40, 46 or 47~~claim 1~~ with said tissue.

26. (Original) The method of claim 25 wherein said tissue is *ex vivo*.

27. (Original) The method of claim 25 wherein said tissue is *in vivo* and said peptide is contacted with said tissue by administering said peptide intravenously, transdermally, intrasynovially, intramuscularly, intratumorally, intraocularly, intranasally, intrathecally, topically or orally.

28. (Original) The method of claim 25 wherein contacting said peptide with said tissue comprises: administration of a synthetic gene encoding said peptide to said tissue, wherein the peptide is produced in said tissue when the synthetic gene is expressed therein.

29. (Original) The method of claim 25 wherein said peptide is conjugated to a fluorochrome, radioactive tag, paramagnetic heavy metal, diagnostic dye or enzyme.

30. (Currently amended) A method of detecting tumors or tumor invasion in a tissue by administering the peptide of any of claims 1, 36, 37, 38, 40, 46 or 47 ~~claim 1~~.

31. (Original) The method of claim 30 wherein said tissue is *ex vivo*.

32. (Original) The method of claim 30 wherein said tissue is *in vivo* and said peptide is administered intravenously, transdermally, intrasynovially, intramuscularly, intratumorally, intraocularly, intranasally, intrathecally, topically or orally.

33. (Original) The method of claims 30 wherein said peptide is conjugated to a fluorochrome, radioactive tag, paramagnetic heavy metal or diagnostic dye.

34. (Currently amended) A method for detecting a peptide of any of claims 1, 36, 37, 38, 40, 46 or 47~~claim 1~~ in a sample, comprising: contacting the sample with a compound that binds to and forms a complex with the peptide for a period sufficient to form a complex; and

detecting the complex, so that if a complex is detected ~~the a peptide of claim 1~~ is detected.

35. (Original) The method of claim 34 wherein said compound is an antibody.

36. (Currently amended) A peptide ~~of claim 1~~ consisting of the sequence in SEQ ID NO:1.

37. (Currently amended) A peptide ~~of claim 1~~ consisting of a combination of SEQ ID NO:1 and an one additional flanking amino acid at the N-terminus of the peptide SEQ ID NO:1.

38. (Currently amended) A peptide ~~of claim 1~~ consisting of a combination of SEQ ID NO:1 and an one additional flanking amino acid at the C-terminus of the peptide SEQ ID NO:1.

39. (Previously presented) The peptide of claim 37 or claim 38 wherein the flanking amino acid is a cysteine.

40. (Currently amended) A peptide ~~of claim 1~~ consisting of a combination of SEQ ID NO:1 and an one additional flanking amino acid at each of the N- and C-termini of the peptide SEQ ID NO:1.

41. (Previously presented) The peptide of claim 40 wherein at least one flanking amino acid is a cysteine.

42. (Previously presented) A peptide of claim 1 consisting of SEQ ID NO:2.

43. (Currently amended) A peptide of claim 1 consisting of a combination of SEQ ID NO:2 having an and one additional flanking amino acid at the N-terminus of ~~the peptide~~ SEQ ID NO:2.

44. (Currently amended) A peptide of claim 1 consisting of a combination of SEQ ID NO:2 having an and one additional flanking amino acid at the C-terminus of ~~the peptide~~ SEQ ID NO:2.

45. (Currently amended) A peptide of claim 1 consisting of a combination of SEQ ID NO:2 and an one additional flanking amino acid at each of the N- and C-termini of ~~the peptide~~ SEQ ID NO:2.

46. (New) An isolated anti-angiogenic peptide comprising the sequence of amino acids 1-10 of SEQ ID NO:2.

47. (New) An isolated anti-angiogenic peptide comprising the sequence of amino acids 2-11 of SEQ ID NO:2.

48. (New) A pharmaceutical composition comprising the peptide of any of claims 1, 36, 37, 38, 40, 46 or 47.